



DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2022-0799; Project Identifier AD-2022-00611-T]

RIN 2120-AA64

Airworthiness Directives; The Boeing Company Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: The FAA proposes to adopt a new airworthiness directive (AD) for all The Boeing Company Model 787-8, 787-9, and 787-10 airplanes. This proposed AD was prompted by a report indicating that foreign object debris (FOD) could have been introduced during rework of certain engine fire shutoff switches (EFSS). This proposed AD would require determining the serial number of the left and right EFSS and replacing affected parts. This proposed AD would also limit the installation of affected parts under certain conditions. The FAA is proposing this AD to address the unsafe condition on these products.

DATES: The FAA must receive comments on this proposed AD by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

- Federal eRulemaking Portal: Go to <https://www.regulations.gov>. Follow the instructions for submitting comments.
- Fax: 202-493-2251.

- Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC 20590.

- Hand Delivery: Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For service information identified in this NPRM, contact Boeing Commercial Airplanes, Attention: Contractual & Data Services (C&DS), 2600 Westminister Blvd., MC 110-SK57, Seal Beach, CA 90740-5600; telephone 562-797-1717; internet <https://www.myboeingfleet.com>. You may view this referenced service information at the FAA, Airworthiness Products Section, Operational Safety Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206-231-3195. It is also available at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2022-0799.

Examining the AD Docket

You may examine the AD docket at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2022-0799; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this NPRM, any comments received, and other information. The street address for Docket Operations is listed above.

FOR FURTHER INFORMATION CONTACT: Tak Kobayashi, Aerospace Engineer, Propulsion Section, FAA Seattle ACO Branch, 2200 South 216th St., Des Moines, WA 98198; phone and fax: 206-231-3553; email Takahisa.Kobayashi@faa.gov.

SUPPLEMENTARY INFORMATION:

Comments Invited

The FAA invites you to send any written relevant data, views, or arguments about this proposal. Send your comments to an address listed under ADDRESSES. Include

“Docket No. FAA-2022-0799; Project Identifier AD-2022-00611-T” at the beginning of your comments. The most helpful comments reference a specific portion of the proposal, explain the reason for any recommended change, and include supporting data. The FAA will consider all comments received by the closing date and may amend this proposal because of those comments.

Except for Confidential Business Information (CBI) as described in the following paragraph, and other information as described in 14 CFR 11.35, the FAA will post all comments received, without change, to <https://www.regulations.gov>, including any personal information you provide. The agency will also post a report summarizing each substantive verbal contact received about this NPRM.

Confidential Business Information

CBI is commercial or financial information that is both customarily and actually treated as private by its owner. Under the Freedom of Information Act (FOIA) (5 U.S.C. 552), CBI is exempt from public disclosure. If your comments responsive to this NPRM contain commercial or financial information that is customarily treated as private, that you actually treat as private, and that is relevant or responsive to this NPRM, it is important that you clearly designate the submitted comments as CBI. Please mark each page of your submission containing CBI as “PROPIN.” The FAA will treat such marked submissions as confidential under the FOIA, and they will not be placed in the public docket of this NPRM. Submissions containing CBI should be sent to Tak Kobayashi, Aerospace Engineer, Propulsion Section, FAA Seattle ACO Branch, 2200 South 216th St., Des Moines, WA 98198; phone and fax: 206-231-3553; email Takahisa.Kobayashi@faa.gov. Any commentary that the FAA receives that is not specifically designated as CBI will be placed in the public docket for this rulemaking.

Background

The FAA has received a report indicating that FOD could have been introduced in the left or right EFSS having certain serial numbers during rework at a sub-tier supplier. The affected EFSS are part of the engine fire control panel part number (P/N) 412600-003, with left EFSS P/N 417000-104 and right EFSS P/N 417000-105. FOD in an EFSS, if not addressed, could result in a latent failure and loss of intended functions, including the inability to pull the engine fire handle and uncommanded activation of the engine fuel shutoff function. The inability to pull the engine fire handle when an engine fire is detected could lead to an uncontrolled engine fire and subsequent wing failure, and uncommanded activation of the fuel shutoff function for an engine, which if combined with in-flight shutdown of the remaining engine, could lead to total loss of engine thrust. Boeing and the parts supplier have notified operators who received affected EFSS parts and asked operators to return the parts for inspection and rework to address the unsafe condition. Any affected EFSS that has undergone this inspection and rework has been marked with “Inspection Record SB D533-1X-003,” and is acceptable for installation on an airplane.

FAA’s Determination

The FAA is issuing this NPRM after determining that the unsafe condition described previously is likely to exist or develop on other products of the same type design.

Related Service Information under 1 CFR Part 51

The FAA reviewed Boeing Alert Requirements Bulletin B787-81205-SB260010-00 RB, Issue 001, dated May 2, 2022. This service information specifies procedures for determining the serial number of the left EFSS having P/N 417000-104 and the right EFSS having P/N 417000-105, and replacing any EFSS having an affected serial number

with an EFSS that does not have an affected serial number, or with an EFSS that has an affected serial number but is marked with “Inspection Record SB D533-1X-003.”

This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in ADDRESSES.

Proposed AD Requirements in this NPRM

This proposed AD would require accomplishing the actions specified in the service information already described, except as discussed under “Differences Between this Proposed AD and the Service Information” and except for any differences identified as exceptions in the regulatory text of this proposed AD. This proposed AD would also limit the installation of affected parts under certain conditions. For information on the procedures and compliance times, see this service information at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2022-0799.

Other Relevant Rulemaking

The FAA issued AD 2021-02-06, Amendment 39-21389 (86 FR 10790, February 23, 2021) (AD 2021-02-06) to address a latent failure of the engine fire handle. AD 2021-02-06 requires, among other actions, replacing engine fire control panel part number (P/N) 412600-001 with P/N 412600-003, or modifying P/N 412600-001 and re-identifying it as P/N 412600-003. Engine fire control panel part number P/N 412600-003 includes left EFSS P/N 417000-104 and right EFSS P/N 417000-105, which are the EFSS this proposed AD would require inspecting and replacing if necessary. AD 2021-02-06 has a compliance time of within 15 months after March 30, 2021, for operators to install or modify the engine fire control panel, including the right and left EFSS.

Differences Between this Proposed AD and the Service Information

The effectivity of Boeing Alert Requirements Bulletin B787-81205-SB260010-00 RB, Issue 001, dated May 2, 2022, is limited to Model 787 airplanes having certain line

numbers. However, the applicability of this proposed AD includes all Boeing Model 787 airplanes. Because the affected EFSS are rotatable parts, the FAA has determined that these parts could later be installed on airplanes that were initially delivered with acceptable EFSS, thereby subjecting those airplanes to the unsafe condition. The FAA has confirmed that the Accomplishment Instructions in Boeing Alert Requirements Bulletin B787-81205-SB260010-00 RB, Issue 001, dated May 2, 2022, are applicable to the expanded group of airplanes.

Costs of Compliance

The FAA estimates that this AD, if adopted as proposed, would affect 132 airplanes of U.S. registry. The FAA estimates the following costs to comply with this proposed AD:

Estimated costs

Action	Labor cost	Parts cost	Cost per product	Cost on U.S. operators
Determination of EFSS serial number	1 work-hour X \$85 per hour = \$85	\$0	\$85	\$11,220

The FAA estimates the following costs to do any necessary replacements that would be required based on the results of the proposed inspection. The agency has no way of determining the number of aircraft that might need these replacements:

On-condition costs

Action	Labor cost	Parts cost	Cost per product
Replacement of EFSS	2 work-hours X \$85 per hour = \$170	\$9,685	\$9,855 (for one EFSS)

Authority for this Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator.

Subtitle VII: Aviation Programs, describes in more detail the scope of the Agency's authority.

The FAA is issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: General requirements. Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

The FAA determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify this proposed regulation:

- (1) Is not a "significant regulatory action" under Executive Order 12866,
- (2) Would not affect intrastate aviation in Alaska, and
- (3) Would not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

The Proposed Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. The FAA amends § 39.13 by adding the following new airworthiness directive:

The Boeing Company: Docket No. FAA-2022-0799; Project Identifier

AD-2022-00611-T.

(a) Comments Due Date

The FAA must receive comments on this airworthiness directive (AD) by
[INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL
REGISTER].

(b) Affected ADs

None.

(c) Applicability

This AD applies to all The Boeing Company Model 787-8, 787-9, and 787-10
airplanes, certificated in any category.

(d) Subject

Air Transport Association (ATA) of America Code 26, Fire protection.

(e) Unsafe Condition

This AD was prompted by a report indicating that foreign object debris (FOD)
could have been introduced during rework of certain engine fire shutoff switches (EFSS).
The FAA is issuing this AD to address FOD in an EFSS, which if not addressed, could
result in a latent failure and loss of intended functions, including the inability to pull the
engine fire handle and uncommanded activation of the engine fuel shutoff function. The
inability to pull the engine fire handle when an engine fire is detected could lead to an
uncontrolled engine fire and subsequent wing failure and uncommanded activation of the

fuel shutoff function for an engine, which if combined with in-flight shutdown of the remaining engine, could lead to total loss of engine thrust.

(f) Compliance

Comply with this AD within the compliance times specified, unless already done.

(g) Required Actions

For airplanes with an original airworthiness certificate or original export certificate of airworthiness issued on or before the effective date of this AD: Except as specified by paragraph (h) of this AD, at the applicable time specified in the “Compliance” paragraph of Boeing Alert Requirements Bulletin B787-81205-SB260010-00 RB, Issue 001, dated May 2, 2022, do all applicable actions identified in, and in accordance with, the Accomplishment Instructions of Boeing Alert Requirements Bulletin B787-81205-SB260010-00 RB, Issue 001, dated May 2, 2022.

Note 1 to paragraph (g): Guidance for accomplishing the actions required by this AD can be found in Boeing Alert Service Bulletin B787-81205-SB260010-00, Issue 001, dated May 2, 2022, which is referred to in Boeing Alert Requirements Bulletin B787-81205-SB260010-00 RB, Issue 001, dated May 2, 2022.

(h) Exceptions to Service Information Specifications

Where the Compliance Time column of the table in the “Compliance” paragraph of Boeing Alert Requirements Bulletin B787-81205-SB260010-00 RB, Issue 001, dated May 2, 2022, uses the phrase “the Issue 001 date of Requirements Bulletin B787-81205-SB260010-00 RB,” this AD requires using “the effective date of this AD.”

(i) Parts Installation Limitation

For airplanes with an original airworthiness certificate or original export certificate of airworthiness issued after the effective date of this AD: As of the effective date of this AD, no person may install a left EFSS P/N 417000-104 or a right EFSS P/N 417000-105, having a serial number specified in Boeing Alert Requirements Bulletin B787-81205-SB260010-00 RB, Issue 001, dated May 2, 2022, unless that EFSS is marked with “Inspection Record SB D533-1X-003.”

(j) Alternative Methods of Compliance (AMOCs)

(1) The Manager, Seattle ACO Branch, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or responsible Flight Standards Office, as appropriate. If sending information directly to the manager of the certification office, send it to the attention of the person identified in paragraph (k)(1) of this AD. Information may be emailed to: 9-ANM-Seattle-ACO-AMOC-Requests@faa.gov.

(2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the responsible Flight Standards Office.

(3) An AMOC that provides an acceptable level of safety may be used for any repair, modification, or alteration required by this AD if it is approved by The Boeing Company Organization Designation Authorization (ODA) that has been authorized by the

Manager, Seattle ACO Branch, FAA, to make those findings. To be approved, the repair method, modification deviation, or alteration deviation must meet the certification basis of the airplane, and the approval must specifically refer to this AD.

(k) Related Information

(1) For more information about this AD, contact Tak Kobayashi, Aerospace Engineer, Propulsion Section, FAA Seattle ACO Branch, 2200 South 216th St., Des Moines, WA 98198; phone and fax: 206-231-3553; email Takahisa.Kobayashi@faa.gov.

(2) For service information identified in this AD, contact Boeing Commercial Airplanes, Attention: Contractual & Data Services (C&DS), 2600 Westminister Blvd., MC 110-SK57, Seal Beach, CA 90740-5600; telephone 562-797-1717; internet <https://www.myboeingfleet.com>. You may view this referenced service information at the FAA, Airworthiness Products Section, Operational Safety Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206-231-3195.

Issued on June 16, 2022.

Christina Underwood, Acting Director,
Compliance & Airworthiness Division,
Aircraft Certification Service.

[FR Doc. 2022-14412 Filed: 7/7/2022 8:45 am; Publication Date: 7/8/2022]